rash, to $2,728 (78 days) for sleep-related symptoms and $4,434 (41 days) for nausea/vomiting. Mean incremental cost per AE episode ranged from $1,581 (rash), $2,033 (lipid disorders) to $12,834 (nausea/vomiting) and $22,321 (sleep-related). **CONCLUSIONS:** Treatment-associated AEs are now essential considerations with increased HIV patient longevity. In addition to clinical implications, economic costs should be considered in NNRTI-containing treatment regimen decisions and for estimating cost-effectiveness of therapy.

PIN12

COST ANALYSIS OF RILPIVIRINE VERSUS EFAVIRENZ FOR TREATMENT OF HUMAN IMMUNODEFICIENCY VIRUS (HIV)

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OBJECTIVES: Drugs used in the treatment of Human Immunodeficiency Virus (HIV) which form part of Highly Active Anti-retroviral Therapy (HAART) are usually expensive and may have serious side effects. The objective of this study was to compare the costs and adverse events of a new therapeutic agent, Rilpivirine, with an established agent, Efavirenz, used in the treatment of HIV, both of which form part of HAART among treatment naïve patients. **METHODS:** Decision tree analysis was used to compare the direct medical costs of using Rilpivirine versus Efavirenz in HAART from the societal perspective. Drug costs were obtained from an online drug information source and Red Book 2008. Base case probabilities of having an adverse event were obtained from a published clinical trial comparing Rilpivirine versus Efavirenz (N=690). Costs for treating adverse events were obtained from the Medical Expenditure Panel Survey Database (2008). All costs were converted into 2011 US dollars. Sensitivity analyses were performed to determine the effects of variations in assumptions regarding drug costs and costs for treating adverse events on study results. All analyses were conducted using the 2011 TreeAge Pro Software. **RESULTS:** The analyses showed that Rilpivirine is the treatment of choice in the first year of therapy with a net cost of $27,282 per patient for Rilpivirine as compared to $28,619 per patient for Efavirenz. These results were robust to changes in assumptions about costs of adverse events. If the cost of Rilpivirine was higher than $11,610 or if the cost of Efavirenz was lower than $6,387, Efavirenz would be the treatment of choice. **CONCLUSIONS:** From a societal standpoint, Rilpivirine as part of HAART costs less as compared to Efavirenz. Future studies should aim at comparing Rilpivirine with other established drugs used in the treatment of HIV.

PIN13

THE INCREMENTAL ECONOMIC BURDEN OF CLOSTRIDIUM-DIFFICILE ASSOCIATED DIARRHEA AMONG HOSPITALIZED PATIENTS AT HIGH RISK OF RECURRENT INFECTION

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OBJECTIVES: To determine the incremental economic burden associated with Clostridium-difficile associated diarrhea (CDAD) among patient sub-populations at elevated risk for recurrent CDAD: immunocompromised (IC), prior CDAD, concurrent antibiotic use (cABx), renally impaired (RI), inflammatory bowel disease (IBD), and age ≥ 65 years (elderly) patients. **METHODS:** CDAD cases hospitalized with a diagnosis of CDAD (ICD-9-CM: 008.45) having ≥12 months of prior health plan eligibility and ≥18 years of age between January 1, 2005 and October 31, 2010 were identified from the HealthCore Integrated Research Database (HIRD^{SM}). CDAD cases within each sub-population were matched to hospitalized controls without CDAD diagnosis based on: age±10 years, gender, preceding/in-hospital comorbidities (cardiovascular, pulmonary, haematopoietic, and musculoskeletal) and use of antibiotics. Incremental hospital length of stay (LOS) and hospital costs were calculated between matched cases and controls using multivariate generalized linear models using a Gamma distribution. Covariates were determined from post-match univariate analysis of baseline characteristics for each sub-population. **RESULTS:** Post-match case-to-control ratios ranged from 1:1 to 1:3 for each sub-population (IC: n=3,586 cases; prior CDAD: n=933 cases; cABx: n=4,429 cases; RI: n=5,533 cases; IBD: n=1,206 cases; elderly: n=10,933 cases). Post-match comparisons of baseline characteristics indicated no significant (P>0.05) difference in targeted match criteria. Compared to controls in all sub-populations, CDAD cases had significantly greater (P<0.0001) hospital LOS (mean incremental days [95% C.I.]; IC: 8.4 [7.9-9.0]; prior CDAD: 2.9 [2.4-3.6]; cABx: 7.8 [7.4-8.3]; RI: 17.3 [16.4-18.3]; IBD: 3.3 [2.9-3.7]; elderly: 7.8[7.5-8.1]) and hospital costs (mean incremental USD [95% C.I.]; IC: $31.8K [28.5-35.5]; prior CDAD: 28.0K [19.7-40.0]; cABx: 36.3K [33.3-39.6]; RI: $115.6K [105.2-127.1]; IBD: $11.2K [9.3-13.4]; elderly: $43.2K [40.9-45.7]). **CONCLUSIONS:** This study demonstrates the significant incremental economic burden associated with CDAD both within the hospital setting and from a payer perspective. CDAD patients in each sub-population incurred significantly greater hospital LOS and corresponding hospital costs relative to matched controls.

PIN14

RESOURCE UTILIZATION AND COSTS OF TREATING COMPLICATED SKIN AND SKIN STRUCTURE INFECTIONS WITH DAPTOMYCIN OR TELAVANCIN

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OBJECTIVES: Complicated skin and skin structure infection (cSSSI) is a common and costly condition. Telavancin, a bactericidal lipoglycopeptide antibiotic, was approved in September 2009 as a once-daily therapy for cSSSI. A retrospective analysis was conducted using the Premier database to compare hospital resource utilization and costs of cSSSI patients treated with telavancin or daptomycin. **METHODS:** Adults with a hospital admission diagnosis of cSSSI receiving telavancin or daptomycin during 2010 were selected. cSSSI was defined by 2011 IDSA guidelines using ICD-9-CM codes. Logistic regression predicting treatment choice and clinical opinion were used to identify the matched variables: age, gender, race, primary diagnosis of cSSSI, prior MRSA infection, APR SOI score, hospital location of drug initiation, and obesity. Eighty telavancin admissions were matched to 80 daptomycin admissions. Length of stay (LOS) in the hospital and ICU, and post-drug LOS were analyzed. Costs were calculated using patient billing data. Unadjusted regression models with gamma distribution and a log link were utilized. **RESULTS:** The mean age was 54 years and 64% were male in both groups. Major underlying conditions included MRSA infection (35 vs. 23%), sepsis (26 vs. 28%), diabetes (23 vs. 35%), and/or obesity (16 vs. 16%) (telavancin vs. daptomycin, respectively). Patients receiving telavancin had less LOS (11.9 vs. 14.8 days), post-drug LOS (7.9 vs. 8.8 days), ICU-LOS (3.2 vs. 4.0 days), total hospital costs ($29,791 vs. $39,054), and pharmacy costs ($4,918 vs. $8,366). Due to large variance in the data, however, none were statistically significant. Total dosing of study drugs was higher (4,450 mg vs. 3,061 mg) and daily cost was lower ($283 vs. $367) for telavancin patients. **CONCLUSIONS:** For all categories, consistently lower resource utilization and costs in the telavancin group compared to the daptomycin group were observed, although differences were not statistically significant.

PIN15

IMPACT OF SURGICAL STAPHYLOCOCCUS AUREUS INFECTIONS ON US HOSPITALS

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OBJECTIVES: *Staphylococcus* aureus is a common cause of nosocomial infections in acute care hospitals. This study aimed to estimate the clinical and economic impact of *S. aureus* infections associated with surgical procedures in US hospitals. **METHODS:** The analysis used the 2009 US National Inpatient Sample data, representing a 20% sample of 1050 hospitals from 44 states. The seven surgical subgroups examined included vascular, cardiothoracic, general, orthopedic, neurosurgical, plastic, and GYN/GU surgeries. *S. aureus* infection rates, length of stay, total hospital charges and in-hospital mortality were estimated. Multivariate models adjusted for sampling weights were used for analyses that control for age, gender, race, payer source, comorbidities, procedure type, admission type and hospital characteristics. **RESULTS:** In total, there were 6,894,989 hospitalizations that involved at least 1 of the 7 surgical subgroups among patients age ≥ 18. Surgical *S. aureus* infection was reported as a discharge diagnosis in 61,783 admissions, or 0.90 per 100 admissions (95% CI, 0.85-0.94). *S. aureus* infection rates varied largely by surgical subgroups, ranging from 0.12% in GYN/GU to 5.42% in plastic procedures. The adjusted excess length of stay associated with *S. aureus* infection was 9.5 days compared to procedures with no *S. aureus* infection, ranging from 4.6 days in orthopedic procedures to 12.8 days in general procedures. The excess hospital charge associated with *S. aureus* infection was also significant at the adjusted mean of $67,939 compared to no infection. The inpatients with *S. aureus* infection had 2.1 (95% CI, 1.9-2.3) times the odds of dying in the hospital than patients without *S. aureus* infection. **CONCLUSIONS:** The total number of inpatient *S. aureus* infections and its clinical and economic impact on US hospitals were substantial. Prevention of *S. aureus* infections would improve clinical outcomes and benefit hospitals and society in terms of decreased use of scarce health care resources.

PIN16

EVALUATION OF COSTS & OUTCOMES OF HOSPITAL-ACQUIRED BLOOD STREAM INFECTIONS AT A PRIVATE TERTIARY CARE HOSPITAL OF INDIA

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OBJECTIVES: This study aimed to evaluate the costs and outcomes of hospital-acquired blood stream infections. **METHODS:** This case control retrospective study captured data on inpatients in the private hospital for a period of 2 years. The case group had patients who had developed hospital acquired blood stream infections and they were matched with controls on the basis of age, primary diagnosis, and severity of illness. While all the costs were included, the outcome measures adopted were discharge status, length of stay and mortality of patients. **RESULTS:** The results are based on 30 matched patients in each arm. While hypertension was the chief co-morbidity present in both the arms, upto 37% of the patients had none. *Staphylococci* and *Acinetobacter bauminii/hemolyticus* were found to the most common pathogens, of the 15 identified responsible for causing hospital-acquired blood stream infections. Polymixins were the most commonly used antimicrobial, prescribed to 12 patients, followed by Teicoplanin and Linezolid. The 11/30 & 14/30 patients improved in the case and the control group, respectively. The total LOS and the ICU LOS was significantly higher in the case group compared to controls. The crude mortality rate for the case was 53% against 23% for controls. The median of the total cost of treatment was statistically significantly higher for the case group when compared to the control (p=0.001). Drug costs accounted for over 50% of the total costs of treatment. **CONCLUSIONS:** These results confirm that hospital-acquired blood stream infections pose an additional burden of the health resources & significantly affect the mortality.

PIN17

COST OF TREATMENT FAILURE AMONG ADULT OUTPATIENTS WITH MODERATE OR COMPLICATED COMMUNITY-ACQUIRED METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (CA-MRSA) SKIN INFECTIONS: A STARNET STUDY

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